

### Abstract

Arrangement for the optical detection of light radiation which is excited and/or backscattered in a specimen in a microscope, wherein the specimen illumination is focused in and/or in the vicinity of a pupil plane of the beam path between the specimen plane and detection plane and apparatus is provided in this plane for spatially separating the illumination light from the detection light, wherein fluorescent light and/or luminescent light and/or phosphorescent light and/or diffusely scattered illumination light coming from the specimen is detected, and the apparatus for spatial separation comprises at least a reflecting first portion and at least a transmitting second portion, wherein the reflecting portion serves to couple in the illumination light and the transmitting portion serves to pass the detection light in the detection direction or the transmitting portion serves to couple in the illumination light and the reflecting portion serves to couple out the detection light.